

AMENDMENTS TO THE CLAIMS

Claim 1. (Currently Amended) A method for receiving wireless signals, the method comprising the steps of:

calculating an amount of time for a signal to travel to a receiver from an antenna in an antenna system;

providing a rake receiver having a plurality of fingers, the rake receiver containing a finger for each antenna in an antenna system;

receiving the signal from each antenna at a corresponding finger of the receiver;

at each finger, (i) implementing a varying delay on the signal corresponding to the amount of time for the signal to travel to the receiver, the delay varying over a first predetermined range of values; (ii) measuring a signal power level of the signal; and (iii) resetting the delay to a value corresponding to the highest measured signal power level of the signal for further operation of the receiver; and

resolving the signal at the receiver.

Claim 2. (Original) The method of Claim 1, wherein the delay is an adjustable delay.

Claim 3. (Original) The method of Claim 1, wherein the delay is implemented at the receiver on the plurality of fingers.

Claim 4. (Original) The method of Claim 1, wherein the delay is implemented at the antenna.

Claim 5. (Original) The method of Claim 1, wherein the step of resolving the signal at the receiver includes a combiner summing outputs of the plurality of fingers to recover a transmitted signal.

Claim 6. (Currently Amended) A rake receiver circuit for receiving multi-path signals, the rake receiver comprising:

a first rake finger circuit having a first variable delay element, where the first variable delay element is configured to receive a first delay control signal, the first delay control signal value being selected to align a first delay introduced by the first variable delay element with a first multi-path signal to produce a first correlated data signal;

a second rake finger circuit having a second variable delay element, where the second variable delay element is configured to receive a second delay control signal, the second delay control signal value being selected to align a second delay introduced by the second variable delay element with a second multi-path signal to produce a second correlated data signal; and

a scan control circuit configured to receive the first and second correlated signals and, responsive thereto, generate the first and second delay control signals, where the scan control circuit is configured to generate the first delay control signal by: (i) varying the first delay control signal over a first predetermined range of values, (ii) measuring a signal power level of the first correlated data signal to determine a value of the first delay control signal corresponding to a highest measured signal power level of the first correlated data signal, and (iii) setting the first delay control signal to the value of the first delay control signal corresponding to the highest measured signal power level of the first correlated data signal for operation, and where the scan control circuit is further configured to generate the second delay control signal by: (i) varying the

second delay control signal over a second predetermined range of values, (ii) measuring a signal power level of the second correlated data signal to determine a value of the second delay control signal corresponding to a highest measured signal power level of the second correlated data signal, and (iii) setting the second delay control signal to the value of the second delay control signal corresponding to the highest measured signal power level of the second correlated data signal for operation; and

a summing circuit for summing the first and second correlated signals to produce a combined data signal, ~~wherein the first delay and the second delay are selected so that the first correlated data signal and the second correlated data signal arrive at the summing circuit at substantially the same time.~~

Claims 7-8. (Canceled)

Claim 9. (Currently Amended) The rake receiver of Claim 8, where the scan control circuit is further configured to generate the first and second delay control signals responsive to a scan control signal.

Claims 10-12. (Canceled)

Claim 13. (Currently Amended) A method for receiving a plurality of multi-path signals in a rake receiver, the method comprising the steps of:

providing a ~~first~~ variable delay for a ~~first~~ each finger of the rake receiver by;

(i) varying the variable delay over a predetermined range of values;

(ii) measuring an output power level of the ~~first~~-finger of the rake receiver at each value to identify a high output power level of the ~~first~~-finger;

(iii) setting a delay of the ~~first~~-variable delay to correspond to the value having the high output power level of the ~~first~~-finger, the delay corresponding to a ~~first~~-one of the plurality of multi-path signals;

~~providing a second variable delay for a second finger of the rake receiver;~~

~~selecting a delay of the second variable delay to correspond to a second one of the plurality of multi-path signals; and~~

summing outputs of the ~~first and second fingers~~ each finger of the rake receiver.

Claim 14. (Currently Amended) The method of Claim 13, ~~where setting the delay of the first variable delay further comprises: selecting the delay of the first variable delay to correspond to the first one of the plurality of multi-path signals by~~ further comprising determining the predetermined range of values by calculating a distances from a first antennas corresponding to the first one of the plurality of multi-path signals to determine the delay of the first variable delay.

Claim 15. (Canceled)

Claim 16. (Currently Amended) The method of Claim 13, where the method includes the step of measuring the multi-path signals received at the rake receiver to identify ~~the first and second ones of the multi-path signals~~ and the method further comprising:

adjusting the delay of the first variable delay based on a measured delay of the first one of the multi-path signals; and

~~the step of selecting a delay of the second variable delay to correspond to a second one of the plurality of multi path signals includes adjusting the delay of the second variable delay element based on a measured delay of the second one of the multi-path signals.~~

Claim 17. (Canceled)

Claim 18. (New) The rake receiver of claim 6, wherein the first delay and the second delay are selected so that the first correlated data signal and the second correlated data signal arrive at the summing circuit at substantially the same time.